

Product reference: 1/11

Page 1 of 4

Product title: Corroglass 632

Valid from: 27th November 1997

Last reviewed: July 2020

Type

A glass flake coating of medium viscosity based on top grade Vinyl Ester Resin with low monomer content.

Suggested use

632 is predominantly used for coating intricate components by brush application, where ease of application and contour following are required. The material can also be spray applied using specialist equipment with 'at gun catalysation' to such items as pipework, tankage and flooring. 632 is often used as a primer in specifications containing Corroglass 602 as the main build material.

Limitations

Not suitable for some highly polar solvents.

Health & safety

Before handling or using this product the material safety data sheet should be read and all precautions observed.

Surface preparation

The surface to be coated should be free from grease etc. Metal should be grit blasted to ISO 8501-1 Sa 2½ near 3 or equivalent with a grit profile of at least 75 microns, 100-125 microns being the ideal key. All blast residues should be removed by sweeping clean and vacuuming where necessary. Coating of the substrate should then take place as soon as possible. For full Surface Preparation details see relevant Surface preparation Specification Sheets.

Application equipment

Brush, Roller, Trowel or Special Spray.

Application

When used as a primer for Corroglass 602 the material should be brush applied, vigorously working the coating into the blast profile and ensuring that all the surface is wetted out. Thickness is unimportant provided that if the surface is to be left for any time the thickness should be sufficient to prevent through film corrosion until overcoated.

When used on its own 632 should be applied in multiple layers to the specified DFT for the environment of use. Care should be taken to avoid runs or sags, which although seldom detrimental to the coating performance, may affect fluid flow in pump impellers etc. Usual WFT applications are between 150 and 350 microns for brush applications and 500 to 600 microns sprayed.

In common with other materials within the range, dyes may be added to affect a colour change, but care should be taken to keep addition of dye to a minimum. It is usual to overcoat this product with 652 to obtain a smoother, more easily cleaned and cosmetically superior surface finish, although this is not necessary on purely corrosion protection grounds.

Mixing ratio

Corroglass 632 can be catalysed within the ratios of 100:1 parts base to catalyst by weight to 100:2 parts base to catalyst by weight. The ratio should always be within these limits, 2% addition of catalyst being the norm with a reduction being made for high ambient temperatures.

CORROGLASS

Corroglass 632

Product reference: 1/11

Page 2 of 4

Product title: Corroglass 632

Valid from: 27th November 1997

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Mixing

Weigh out only the proportion of material which can be used within the pot life and place into a suitable mixing container. Measure the correct proportion of catalyst for the amount of base and carefully add this to the base using a suitable clean implement. Mix thoroughly then add dye where necessary and mix to an even colour. After stirring it is advisable to remove the contents from the mixing container into a shallow receptacle and remix.

Pot life

30 to 40 minutes at 20°C. Pot life will be shorter at higher temperatures and longer at lower temperatures. Where high temperatures are encountered, refrigerate material before use or seek the advice of Corrocoat UK for availability of inhibitor or material with longer pot life.

Thinners

DO NOT THIN. The addition of Styrene may substantially affect the chemical resistance of this product, particularly where post curing is not carried out. **NO OTHER DILUTENT OR THINNER SHOULD BE USED. THE USE OF ACETONE OR SIMILAR THINNERS IN CORROGLASS WILL SEVERELY AFFECT PRODUCT PERFORMANCE.**

Packaging

20 Litre composites.

Storage life

6 months stored at temperatures below 20°C and away from radiating heat sources or direct sunlight (see Shelf Life Information Sheet).

Colour availability

Unpigmented (Translucent Brown) or Pigmented White. Dyes can be used to effect colour change where chemical resistance is not of paramount importance.

Recommended DFT

0.7 to 2.0mm in multiple coats. Or as advised.

Theoretical spreading rate

1.25kg per square metre at 1mm thickness.

Volume solids

99.8% solvent free.

Practical spreading rate

Regular surfaces e.g. new steel - 1.8kg per M² at 1mm thickness minimum. Irregular surfaces e.g. badly pitted steel - 2.8 kg per M² at 1mm.

Note: This information is given in good faith but may increase dependent upon environment conditions, the geometry and nature of work undertaken and the skill and care of application. Corrocoat accept no responsibility for any deviation from these values.

Specific gravity

1.22 gms/cc.

Flash point

38°C

Catalyst type

Methyl Ethyl Ketone Peroxide: Corrocoat Type P2.

CORROGLASS

Corroglass 632

Product reference: 1/11

Page 3 of 4

Product title: Corroglass 632

Valid from: 27th November 1997

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Mixing ratio

100:1 to 100:2 base to catalyst.

Hardness

45 Barcol (approximate)

Tensile strength

29.3 N/mm² (4260 psi)

Cohesive strength

24.1 N/mm² (3492 psi)

Elongation

0.8%

Thermal Coefficient of Linear Expansion

$19.6 \times 10^{-6}/^{\circ}\text{C}$

Moisture vapour transmission rate

0.936×10^{-2} gms/hr/m²
(0.0006 perm inches)

Thermal conductivity

0.415 W/m²K

Dielectric strength

Approximately 26 kV at 1mm film. Arc resistance 60 seconds minimum.

Temperature limits

Dependent upon environment.

110°C immersed.

185°C non-immersed.

Overcoating

May take place as soon as previous coat has gelled sufficiently to resist movement of next application and whilst still tacky. Maximum overcoating without treatment 4 days. Shorter at ambient temperatures above 30°C.

Once the maximum overcoating time has been reached, the adhesion values attained by any subsequent coat will reduce dramatically. It is important to observe maximum overcoating times and note these will vary with climatic conditions. Any further application of coating at this juncture should be treated as a repair, with the surface flashed over to provide a physical key. Styrene cannot be used to reactivate the surface and may in some cases impair adhesion.

Cleaning fluid

Acetone or Methyl Ethyl Ketone before gel.

Trichloroethane after gel.

Machining

For best surface finish use pure carbide or carbide tips with small radius and neutral rake. Material has similar machining characteristics to those of grey cast iron. Tool must be kept sharp. Run out will occur due to tool wear over relatively short distances, especially when facing from OD to centre. Clean water may be used as lubricant or dust damper.

CORROGLASS

Corroglass 632

Product reference: 1/11

Page 4 of 4

Product title: Corroglass 632

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Cure time

At 20°C, 90% cure will be attained within 8 hours. Full cure for chemical resistance will be 6 days. Cure time may be shortened and a beneficial increase in final cure may be attained by post heat treatment. Consult Corrocoat UK for specific information.

Although not cured, after gel this material may be immersed in some environments without detriment to the coating.

Reviewed 10/2007 - No Changes
Reviewed 02/2014 (no changes)
Revised 06/2017
Revised 05/2019
Revised 02/2020
Revised 07/2020

All values are approximate. Physical data is based on the product being in good condition before polymerisation, correctly catalysed and full cure being attained. Unless otherwise stated, physical data is based on a test temperature of 20°C, test results may vary with temperature. Information regarding application of the product is available in the Corrocoat manual. Should further information be required, please consult Corrocoat Technical Services.